

optical information in a first coded pattern and a second [layer] set of optical information in a second coded pattern.

2. (Amended) The device according to claim 1, wherein the first coded pattern and the second coded pattern are determined using a single algorithm.

3. (Amended) The device according to claim 1, wherein the first coded pattern and the second coded pattern are determined using independent algorithms.

4. (Amended) A system for authentication of information, comprising:

a holographic element, the holographic element having at least one holographic layer, the at least one holographic layer including a first [layer] set of optical information in a first coded pattern and a second [layer] set of optical information in a second coded pattern; and

a reader, including

an opening for positioning of the holographic element,

a light source,

a first detector positioned at a predetermined distance from the location of the holographic element when the holographic element is positioned in the opening, and

a second detector positioned at a second predetermined distance from the location of the holographic element when the holographic element is positioned in the opening.

#### **REMARKS**

Claims 1-6 are now pending in the above-identified application.

In the office Action, the Examiner objected to the oath or declaration as being defective because it does not identify the mailing address of each inventor. The Examiner also rejected claims 1-6 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner rejected claims 1-3 under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 6,280,891 issued to Daniel et al. ("Daniel") The Examiner also rejected claims

4-6 under 35 U.S.C. § 103(a) as being unpatentable over Daniel in view of U.S. Patent No. 4,171,864 issued to Jung et al. ("Jung").

**1. Objection to the Oath or Declaration**

The Examiner has objected to the oath or declaration as being defective because it does not identify the mailing address of each inventor.

Applicants have submitted herewith a new declaration in compliance with 37 C.F.R. 1.67(a) identifying this application by application number and filing date and that identifies the mailing address for each inventor. Applicants have traversed the Examiner's objection. Applicant's, therefore, respectfully request that the Examiner withdraw the objection to the oath or declaration as being defective.

**2. Rejection Under 35 U.S.C. § 112, Second Paragraph**

The Examiner has rejected claims 1-6 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants have amended independent claims 1 and 4 to more particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The amendment by the Applicants clarifies the subject matter of the claims and makes clear that the holographic element has at least one holographic layer, and that the at least one holographic layer includes a first set of optical information in a first coded pattern and a second set of optical information in a second coded pattern. As the amendment to the claims makes clear that independent claims 1 and 4 are not indefinite, claims 2, 3, 5 and 6 which depend from independent claims 1 and 4 are also not indefinite. Applicants submit that the Examiner's rejection of claims 1-6 is hereby traversed. Applicants, therefore, respectfully request that the Examiner withdraw the rejection of claims 1-6 as being indefinite.

**3. Rejection Under 35 U.S.C. § 102(b)**

The Examiner has rejected claim 1-3 as being anticipated by Daniel.

Daniel is directed to a multilayer assembly for authenticating documents or products having a first layer consisting of identification means such as bar-codes, a photograph or characters printed onto a substrate or object, with the first layer being masked from sight, and a second layer in the form of a film overlay consisting of an authentication means formed by a diffracting optical marker such as a diffraction grating or a hologram. (Col. 2, line 22 - col. 3, line 45). The Daniel specification describes a multi layer assembly that may include a layer having a printed identifier. The assembly also includes a concealing layer above the printed identifier, i.e., a film overlay that masks the printed identifier from sight. The film overlay also includes the authentication means which is described as a diffraction grating or interference pattern (hologram) formed on the film overlay (by recordation or surface stamping) or between sections of the film overlay. The film overlay includes a portion that is used for concealing the printed identifier and a portion that is used as a reflective layer. The printed identifier is not part of the diffracting optical marker, but rather is a separate element. Daniel also describes that the identification means and the authentication means, i.e., the hologram, may each include a portion of the information needed for purposes of identification. (Col. 4, lines 52-57; col. 5, lines 6-12).

This differs markedly from Applicants' claimed invention which recites a holographic element having at least one holographic layer, the at least one holographic layer including a first set of optical information in a first coded pattern and a second set of optical information in a second coded pattern.

Daniel in no way teaches or suggests a device for limiting the reproducibility of information including a holographic element having at least one holographic layer, the at least one holographic layer including a first set of optical information in a first coded pattern and a second set of optical information in a second coded pattern, as recited in claim 1.

Instead Daniel teaches a multi-layer assembly including a first printed layer and a second holographic layer. Daniel does not provide any teaching or suggestion with respect to the structure of the holographic layer other than to describe that it incorporates a single set of information. (Col. 4, lines 58-65).

In view of the foregoing, it is respectfully submitted that independent claim 1 is not anticipated by Daniel. Because claims 2 and 3 depend from and, therefore, include all of the limitations of claim 1, it is respectfully submitted that claims 2 and 3 are likewise not anticipated by Daniel.

#### **4. Rejection Under 35 U.S.C. § 103(a)**

The Examiner has rejected claims 4-6 as being unpatentable over Daniel in view of Jung.

Jung is directed to an identification document containing visual and invisible data and a device for displaying the information contained in the identification document, such that the identification document is placed within the device.

As discussed above with respect to independent claim 1, Daniel in no way teaches or suggests a device for limiting the reproducibility of information including a holographic element having at least one holographic layer, the at least one holographic layer including a first set of optical information in a first coded pattern and a second set of optical information in a second coded pattern, as recited in claim 4. Jung does not compensate for the inadequacies of Daniel.

This is clearly evident because Jung does not teach or suggest a device for limiting the reproducibility of information including a holographic element having at least one holographic layer, the at least one holographic layer including a first set of optical information in a first coded pattern and a second set of optical information in a second coded pattern, as recited in claim 4. In fact, the Examiner cited Jung merely as disclosing the element of a display system for reading a security document where the security document is positioned inside the reader apparatus through an opening.

In view of the foregoing, it is respectfully submitted that because Daniel does not anticipate independent claim 4, and Jung does not teach or suggest any of the missing elements, Daniel and Jung either individually or in any known combination do not teach or suggest claim 4 of Applicant's invention. Because claims 5 and 6 depend from and, therefore, contain all of the

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limitations of claim 4, it is respectfully submitted that Daniel and Jung either individually or in any known combination do not teach or suggest claims 5 or 6 of Applicants' invention.

### **CONCLUSION**

For all of the reasons stated above, Applicants respectfully submit that claims 1-6 are in condition for allowance, and such allowance is respectfully requested.

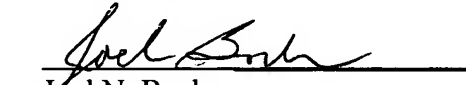
If the Examiner believes that a telephone conference would be of assistance in advancing the prosecution of the application, the Examiner is cordially invited to telephone Applicants', undersigned representative at (212) 398-8484.

Respectfully submitted,

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